



**UNIVERSITI TERKNOLOGI MARA (UiTM) CAWANGAN KEDAH  
COLLEGE OF COMPUTING, INFORMATICS AND MEDIA**

**DIPLOMA IN LIBRARY INFORMATICS (CDIM144)**

**PROGRAMMING FOR LIBRARIES  
(IML208)**

**ASSIGNMENT 1: INDIVIDUAL PROJECT**

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**CLASS:**

**KIM144 3B**

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**SUBMISSION DATE: 4<sup>TH</sup> JANUARY 2024**

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## **1.0 INTRODUCTION**

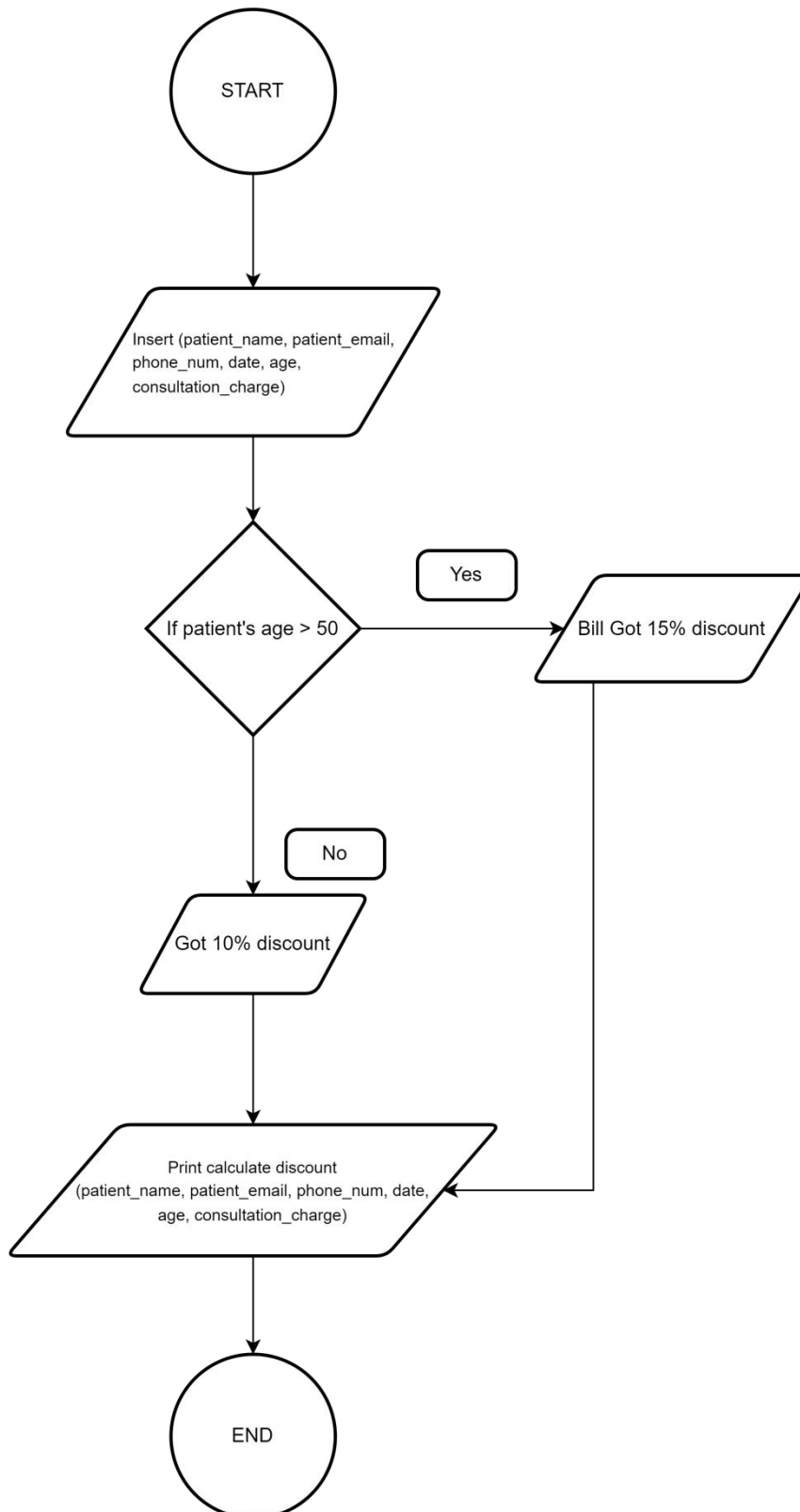
The creation of software programs or code that communicates with and makes use of external libraries is commonly referred to as programming for libraries. Programming libraries are groups of pre-written functions or code that carry out particular tasks. Instead of coding everything from scratch, programmers can save time and effort by utilizing libraries, which make use of pre-written code.

I had to design and construct a single, basic computer interface with Create and Read functions for my individual assignment. My selection for a topic is Clinic Online Appointment. The process of making and managing medical appointments using online platforms or systems is referred to as a clinic online appointment.

Name, email, phone number, and age of the patient are all entered into the system. The staff must also type in the patient's consultation fee and appointment date. It includes a formula that shows patients will receive a 15% discount if they are 50 years of age or older. If they are younger than that, they will receive a 10% discount.

This eliminates the requirement for patients to call or visit the clinic in order to schedule appointments with medical professionals like doctors or specialists. Patients and medical professionals will find the online appointment system more convenient as it simplifies the scheduling process.

## 2.0 FLOWCHART



### 3.0 SNAPSHOT OF CODE

```
import tkinter as tk
from tkinter import ttk
import mysql.connector

def collect_data():
    patient_name = patient_name_entry.get()
    patient_email = email_entry.get()
    phone_num = int(phone_num_entry.get())
    date = date_appointment_entry.get()
    age = int(age_label_entry.get())
    consultation_charge = float(consultation_entry.get())

    # Connect to your MySQL database
    mydb = mysql.connector.connect(
        host="localhost",
        user="root",
        password="",
        database="clinic_appointment"
    )
    # Create a cursor object to execute SQL queries
    mycursor = mydb.cursor()

    if age >= 50:
        discount_percent = 15
    else:
        discount_percent = 10

    discount_amount = (discount_percent / 100) * consultation_charge
    discounted_price = consultation_charge - discount_amount

    result_label.config(text=f"Discounted Price:
RM{discounted_price: .2f}")

# Insert Data to Database
sql = "INSERT INTO patient_data (patient_name, patient_email,
phone_num, date, patient_age, consultation_charge) VALUES
(%s, %s, %s, %s, %s, %s)"
values = (patient_name, patient_email, phone_num, date, age,
discounted_price)
mycursor.execute(sql, values)
mydb.commit()
# Your Main window
root = tk.Tk()
root.title("Clinic Appointment System")
```

```

root.geometry('400x400')
root.configure(bg='tan')

# Create Label
patient_name_label = tk.Label(root, text="Patient Name : ")
email_label = tk.Label(root, text="Patient Email : ")
phone_num_label = tk.Label(root, text="Phone Number : ")
date_appointment_label= tk.Label(root, text="Date (YYYY-MM-DD) : ")
age_label = tk.Label(root, text="Patient Age : ")
consultation_label = tk.Label(root, text="Consultation Charge : ")

patient_name_label.grid(row=0, column=0, sticky=tk.W, padx=10, pady=5)
email_label.grid(row=1, column=0, sticky=tk.W, padx=10, pady=5)
phone_num_label.grid(row=2, column=0, sticky=tk.W, padx=10, pady=5)
date_appointment_label.grid(row=3, column=0, sticky=tk.W, padx=10,
pady=5)
age_label.grid(row=4, column=0, sticky=tk.W, padx=10, pady=5)
consultation_label.grid(row=5, column=0, sticky=tk.W, padx=10, pady=5)

# Create Entry Widget
patient_name_entry = tk.Entry(root)
email_entry = tk.Entry(root)
phone_num_entry = tk.Entry(root)
date_appointment_entry = tk.Entry(root)
age_label_entry = tk.Entry(root)
consultation_entry = tk.Entry(root)

patient_name_entry.grid(row=0, column=1, padx=10, pady=5)
email_entry.grid(row=1, column=1, padx=10, pady=5)
phone_num_entry.grid(row=2, column=1, padx=10, pady=5)
date_appointment_entry.grid(row=3, column=1, padx=10, pady=5)
age_label_entry.grid(row=4, column=1, padx=10, pady=5)
consultation_entry.grid (row=5, column=1, padx=10, pady=5)

# Save Button
save_button = tk.Button(root, text="Calculate Discount",
command=collect_data)
save_button.grid(row=6, column=0, columnspan=2, pady=5)

# Output label & result
result_label = tk.Label(root, text="")
result_label.grid(row=7, column=0, columnspan=2, pady=5)

root.mainloop()

```

## 4.0 SNAPSHOT OF GUI

Clinic Appointment System

Patient Name : Alaida Luana

Patient Email : alaida@gmail.com

Phone Number : 0176015532

Date (YYYY-MM-DD) : 2023-07-21

Patient Age : 50

Consultation Charge : 180

Calculate Discount

Discounted Price: RM 153.00

## 5.0 SNAPSHOT OF DATABASE

### 5.1 Structure

phpMyAdmin

Recent Favorites

- New
- car\_rental
- clinic\_appointment
  - New
  - patient\_data
- example\_ind\_assignment
- holiday\_package
- information\_schema
- mysql
- performance\_schema
- phpmyadmin
- python\_test
- sims
- test

Server: 127.0.0.1 » Database: clinic\_appointment » Table: patient\_data

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 patient_name	char(30)	utf8mb4_general_ci		No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>
<input type="checkbox"/>	2 patient_email	char(30)	utf8mb4_general_ci		No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>
<input type="checkbox"/>	3 phone_num	int(11)			No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>
<input type="checkbox"/>	4 date	char(30)	utf8mb4_general_ci		No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>
<input type="checkbox"/>	5 patient_age	int(2)			No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>
<input type="checkbox"/>	6 consultation_charge	char(5)	utf8mb4_general_ci		No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>

☐ Check all With selected: [Browse](#) [Change](#) [Drop](#) [Primary](#) [Unique](#) [Index](#) [Spatial](#) [Fulltext](#)

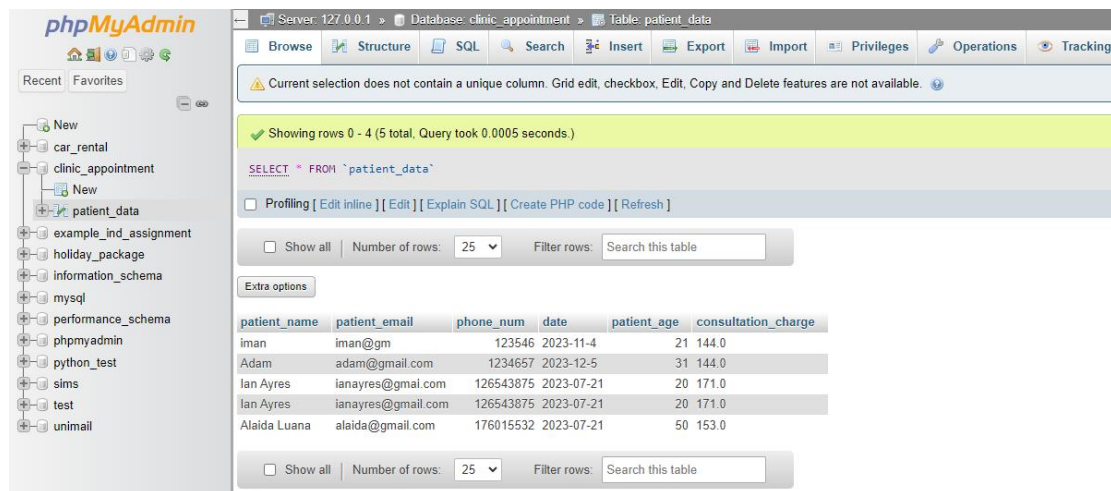
[Add to central columns](#) [Remove from central columns](#)

[Print](#) [Propose table structure](#) [Track table](#) [Move columns](#) [Normalize](#)

[Add](#) 1 column(s) after consultation\_charge [Go](#)



## 5.2 Browse



The screenshot shows the phpMyAdmin interface. On the left is a sidebar with a tree view of databases and tables. The main area displays the 'patient\_data' table. A message at the top states: 'Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.' Below this, a green bar indicates 'Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)'. The SQL query 'SELECT \* FROM `patient\_data`' is shown. Below the query are links for 'Profiling', 'Edit inline', 'Edit', 'Explain SQL', 'Create PHP code', and 'Refresh'. There are controls for 'Show all', 'Number of rows' (set to 25), and a 'Filter rows' search box. An 'Extra options' button is also present. The table data is as follows:

patient_name	patient_email	phone_num	date	patient_age	consultation_charge
iman	iman@gm	123546	2023-11-4	21	144.0
Adam	adam@gmail.com	1234657	2023-12-5	31	144.0
Ian Ayres	ianayres@gmail.com	126543875	2023-07-21	20	171.0
Ian Ayres	ianayres@gmail.com	126543875	2023-07-21	20	171.0
Alaïda Luana	alaïda@gmail.com	176015532	2023-07-21	50	153.0

## 6.0 CONCLUSION

In conclusion, Python and MySQL together can be a very effective tool for creating database-driven applications. From what I can see, MySQL is a popular relational database that can manage a variety of data kinds and relationships and Python is a flexible programming language appropriate for a wide range of applications.

Also, from my individual project's topic, healthcare providers can increase patient satisfaction, decrease administrative burden and increase efficiency by putting in place an online clinic appointment system. Better resource management is also made possible, and clinics are assisted in adjusting to changing healthcare trends like the growing use of telemedicine.

Lastly, I express my gratitude to my lecturer and fellow students for their invaluable assistance with this unique assignment. I'm hoping that my diligence will be rewarded with high marks.